

Amendments to the Claims

This listing of claims replaces all prior listings of claims.

1. (Currently Amended) An insert for attachment to a jaw-type surgical instrument adapted for grasping or occluding a vessel, said insert comprising an elongate member having opposed proximal and distal ends, a compliant cushion having a tissue-engaging contact surface and having a plurality of molded, hooked traction elements on at least a region of said surface, wherein said hooked traction elements are of unitary construction with said tissue engaging contact surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface, wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions.

2. (Original) The insert of claim 1 wherein said molded, hooked traction elements are configured to have at least one crook.

3. (Original) The insert of claim 1 wherein said molded, hooked traction elements are configured to have at least two crooks.

4. (Withdrawn) The insert of claim 1 wherein said molded, hooked traction elements are configured to have a mushroom-like shape.

5. (Currently Amended) An insert according to claim 1 ~~for attachment to a jaw-type surgical instrument adapted for grasping or occluding a vessel, said insert comprising a compliant cushion having a tissue-engaging contact surface and~~

~~having a plurality of molded, hooked traction elements on at least a region of said surface,~~ wherein said molded, hooked traction elements are not more than about 1 mm in height.

6. (Previously Presented) The insert of claim 5 wherein said molded, hooked traction elements are not more than about 0.5 mm in height.

7. (Previously Presented) The insert of claim 5 wherein said molded, hooked traction elements are not more than about 0.3 mm in height.

8. (Previously Presented) The insert of claim 5 wherein the density of said molded, hooked traction elements on said surface region is at least about 100/cm².

9. (Previously Presented) The insert of claim 5 wherein the density of said molded, hooked traction elements on said surface region is at least about 130/cm².

10. (Previously Presented) The insert of claim 5 wherein the density of said molded, hooked traction elements on said surface region is at least about 260/cm².

11. (Previously Presented) The insert of claim 5 wherein the density of said molded, hooked traction elements on said surface region is at least about 300/cm².

12. (Currently Amended) An insert for attachment to a jaw-type surgical instrument adapted for grasping or occluding a vessel,

said insert comprising an elongate member having opposed proximal and distal ends, a compliant cushion having a tissue-engaging contact surface and having a plurality of molded, twin-crooked traction elements on at least a region of said surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface, wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions, wherein said traction elements are not more than about 0.4 mm in height and have a density on said surface region of at least about 130/cm².

13. (Currently Amended) An insert for attachment to a jaw-type surgical instrument adapted for grasping or occluding a vessel, said insert comprising an elongate member having opposed proximal and distal ends, a compliant cushion having a tissue-engaging contact surface and having a plurality of molded, single-crooked traction elements on at least a region of said surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface, wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions, wherein said traction elements are not more than about 0.3 mm in height and have a density on said surface region of at least about 260/cm².

14. (Currently Amended) An insert according to claim 22~~for attachment to a jaw-type surgical instrument adapted for grasping or occluding a vessel, said insert comprising a compliant cushion having a tissue-engaging contact surface and~~

~~having a plurality of molded, mushroom-like traction elements on~~
~~at least a region of said surface,~~ wherein said traction
elements are not more than about 0.3 mm in height and have a
density on said surface region of at least about 300/ cm².

15. (Currently Amended) An insert according to claim 1 ~~for~~
~~attachment to the jaw of a surgical clamp,~~ said insert
~~comprising a compliant cushion having a tissue-engaging contact~~
~~surface and a plurality of molded, hooked traction elements~~
~~located on at least a region of said surface,~~ wherein said
~~hooked traction elements are of unitary construction with said~~
~~tissue engaging contact surface,~~ said insert further comprising
~~a back surface opposite to said contact surface,~~ and a jaw
~~attachment member on the back surface,~~ wherein when said insert
is attached to said jaw, a tractive force of between about 4 to
about 10 pounds is provided on a vessel clamped by the clamp.

16. (Original) The insert of claim 15 wherein said tractive
force is between about 6 to about 8 pounds.

17. (Currently Amended) An insert according to claim 1 ~~for~~
~~attachment to the jaw of a surgical clip,~~ said insert comprising
~~a compliant cushion having a tissue-engaging contact surface and~~
~~a plurality of molded, hooked traction elements located on at~~
~~least a region of said surface,~~ said insert further comprising a
~~back surface opposite to said contact surface,~~ and a jaw
~~attachment member on the back surface,~~ wherein said hooked
~~traction elements are of unitary construction with said tissue~~
~~engaging contact surface,~~ wherein when said insert is attached
to said jaw, a tractive force of between about 1.5 to about 2.5

pounds is provided on a vessel clamped by the clip.

18. (Original) The insert of claim 17 wherein said tractive force is between about 1.5 to about 2 pounds.

19. (Currently Amended) A surgical instrument comprising at least one jaw and an insert attached to the jaw, the insert ~~having~~ comprising an elongate member having opposed proximal and distal ends, a compliant clamping surface adapted for grasping or occluding a vessel, the clamping surface having a plurality of molded, hooked traction elements on at least a region of said surface, and the hooked traction elements being of unitary construction with the clamping surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface, wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions.

20. (Original) The surgical instrument of claim 19 wherein said molded, hooked traction elements are configured to have at least one crook.

21. (Original) The surgical instrument of claim 19 wherein said molded, hooked traction elements are configured to have at least two crooks.

22. (Withdrawn) The surgical instrument of claim 19 wherein said molded, hooked traction elements are configured to have a mushroom-like shape.

23. (Currently Amended) A surgical instrument according to claim 19 ~~comprising at least one jaw having a compliant clamping surface adapted for grasping or occluding a vessel, the clamping surface having a plurality of molded, hooked traction elements on at least a region of said surface,~~ wherein said molded, hooked traction elements are not more than about 1 mm in height.

24. (Previously Presented) The surgical instrument of claim 23 wherein said molded, hooked traction elements are not more than about 0.5 mm in height.

25. (Previously Presented) The surgical instrument of claim 23 wherein said molded, hooked traction elements are not more than about 0.3 mm in height.

26. (Previously Presented) The surgical instrument of claim 23 wherein the density of said molded, hooked traction elements on said surface region is at least about 100/cm².

27. (Previously Presented) The surgical instrument of claim 23 wherein the density of said molded, hooked traction elements on said surface region is at least about 130/cm².

28. (Previously Presented) The surgical instrument of claim 23 wherein the density of said molded, hooked traction elements on said surface region is at least about 260/cm².

29. (Previously Presented) The surgical instrument of claim 23 wherein the density of said molded, hooked traction elements on said surface region is at least about 300/cm².

30. (Currently Amended) A surgical clamp comprising at least one jaw ~~having~~ comprising an elongate member having opposed proximal and distal ends, a compliant cushion having a tissue-engaging contact surface and a plurality of molded, hooked traction elements located on at least a region of said surface, wherein said hooked traction elements are of unitary construction with said tissue engaging contact surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface, wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions and wherein a tractive force of between about 4 to about 10 pounds is provided on a vessel clamped by the clamp.

31. (Original) The surgical clamp of claim 30 wherein said tractive force is between about 6 to about 8 pounds.

32. (Currently Amended) A surgical clip comprising at least one jaw ~~having~~ comprising an elongate member having opposed proximal and distal ends, a compliant cushion having a tissue-engaging contact surface and a plurality of molded, hooked traction elements located on at least a region of said surface, wherein said hooked traction elements are of unitary construction with said tissue engaging contact surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface , wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions and wherein a tractive force of between about 1.5 to about 2.5

pounds is provided on a vessel clamped by the clip.

33. (Original) The surgical clip of claim 32 wherein said tractive force is between about 1.5 to about 2 pounds.

34. (Currently Amended) An insert according to claim 1, wherein ~~said for attachment to a jaw-type surgical instrument adapted for grasping or occluding a vessel, said insert comprising a compliant cushion having a tissue-engaging contact surface and having a plurality of~~ hooked traction elements are on at least a region of said surface at a density on said surface region of at least about 100/cm².

35. (Original) The insert of claim 34 wherein the density of said hooked traction elements on said surface region is at least about 130/cm².

36. (Original) The insert of claim 34 wherein the density of said hooked traction elements on said surface region is at least about 260/cm².

37. (Original) The insert of claim 34 wherein the density of said hooked traction elements on said surface region is at least about 300/cm².

38. (Currently Amended) A surgical instrument according to claim 19 ~~comprising at least one jaw having a compliant clamping surface adapted for grasping or occluding a vessel, wherein the clamping surface having a plurality of~~ hooked traction elements are on at least a region of said surface at a density on said

surface region of at least about $100/\text{cm}^2$.

39. (Original) The surgical instrument of claim 38 wherein the density of said hooked traction elements on said surface region is at least about $130/\text{cm}^2$.

40. (Original) The surgical instrument of claim 38 wherein the density of said hooked traction elements on said surface region is at least about $260/\text{cm}^2$.

41. (Original) The surgical instrument of claim 38 wherein the density of said hooked traction elements on said surface region is at least about $300/\text{cm}^2$.

42. (Currently Amended) An insert according to claim 1 ~~for attachment to a jaw-type surgical instrument adapted for grasping or occluding a vessel, said insert comprising a compliant cushion having a tissue-engaging contact surface and having a plurality of hooked traction elements on at least a region of said surface,~~ wherein said traction elements are not more than 1 mm in height.

43. (Original) The insert of claim 42 wherein said hooked traction elements are not more than about 0.5 mm in height.

44. (Original) The insert of claim 42 wherein said hooked traction elements are not more than about 0.3 mm in height.

45. (Currently Amended) A surgical instrument according to claim 19 ~~comprising at least one jaw having a compliant clamping~~

~~surface adapted for grasping or occluding a vessel, the clamping surface having a plurality of hooked traction elements on at least a region of said surface,~~ wherein said traction elements are not more than 1 mm in height.

46. (Original) The surgical instrument of claim 45 wherein said hooked traction elements are not more than about 0.5 mm in height.

47. (Original) The surgical instrument of claim 45 wherein said hooked traction elements are not more than about 0.3 mm in height.

48. (Currently Amended) A method of occluding a vessel or other body conduit comprising the steps of: (a) providing a jaw-type surgical instrument comprising at least one jaw and an insert attached to the jaw, the insert ~~having comprising an elongate member having opposed proximal and distal ends,~~ a compliant clamping surface adapted for grasping or occluding a vessel, the clamping surface having a plurality of molded, hooked traction elements on at least a region of said surface, wherein said hooked traction elements are of unitary construction with said clamping surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface, wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions; (b) contacting said clamping surface with a vessel or other body conduit; and (c) actuating said instrument to occlude said vessel or other body conduit.

49. (Currently Amended) A method of grasping tissue comprising the steps of: (a) providing a jaw-type surgical instrument comprising at least one jaw and an insert attached to the jaw, the insert ~~having~~ comprising an elongate member having opposed proximal and distal ends, a compliant clamping surface adapted for grasping or occluding a vessel, the clamping surface having a plurality of molded, hooked traction elements on at least a region of said surface, wherein said hooked traction elements are of unitary construction with said contact surface, said insert further comprising a back surface opposite to said contact surface, and a jaw attachment member on the back surface, wherein said contact surface and said back surface extend between said opposed proximal and distal ends and face opposite directions; (b) contacting said clamping surface with tissue; and (c) actuating said instrument to grasp said tissue.

50. (Canceled)

51. (Previously presented) The insert of claim 1, wherein said insert comprises an overmold having first side and a second side opposite from said first side, and wherein said compliant cushion is fixed to said first side of said overmold and said jaw attachment member is fixed to said second side of said overmold.